



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/812,285	03/29/2004	Theodore R. Arneson	CS23014RL	2278
20280	7590	06/20/2006	EXAMINER	
MOTOROLA INC 600 NORTH US HIGHWAY 45 ROOM AS437 LIBERTYVILLE, IL 60048-5343			CAI, WAYNE HUU	
			ART UNIT	PAPER NUMBER
			2617	

DATE MAILED: 06/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/812,285	ARNESEN ET AL.	
	Examiner Wayne Cai	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 29 March 2004.

2a) This action is FINAL.                    2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-21 is/are pending in the application.

4a) Of the above claim(s) 1-9, 20 and 21 is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 10-19 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 29 March 2004 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All    b) Some \* c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>3/29/04 &amp; 12/12/05</u>	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____

**DETAILED ACTION**

The Art Unit location of your application in the USPTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Art Unit 2617.

Claims 10-19 are currently examined.

Claims 1-9, 20, and 21 are non-elected claims.

***Election/Restrictions***

1. During a telephone conversation with Sylvia Chen (Reg. No. 39,633) on June 05, 2006 a provisional election was made without traverse to prosecute the invention of group II, claims 10-19. Affirmation of this election must be made by applicant in replying to this Office action. Claims 1-9, 20, and 21 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.
2. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-9, drawn to specifically a first foot, and a second foot mechanism, classified in class 340, subclass 407.1.
  - II. Claims 10-19, drawn to a handheld communication device, classified in class 455, subclass 567.
  - III. Claims 20-21, drawn to the operation of two devices in a wireless communication system, classified in class 455, subclass 517.

The inventions are distinct, each from the other because of the following reasons:

Inventions I, II and III are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different designs, modes of operation, and effects (MPEP § 802.01 and § 806.06). In the instant case, the different inventions are distinct because of the following reasons:

Invention I teaches a first foot for making contact with an external surface on which the handheld electronic device is placed, and the first foot being coupled to electromechanical transducer, and comprising an asymmetric tread that establishes a direction of movement of the first foot when driven perpendicularly against the external surface by the first electromechanical transducer.

Invention II teaches electronic components within the handheld communication device.

Invention III teaches the operation of two devices, wherein the first device measures the movement of the first device and transmit to a second device.

Because these inventions are independent or distinct for the reasons given above and have acquired a separate status in the art in view of their different classification, restriction for examination purposes as indicated is proper.

Because these inventions are independent or distinct for the reasons given above and the inventions require a different field of search (see MPEP § 808.02), restriction for examination purposes as indicated is proper.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 10, and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Alberth (GB 2 347 593). Note: Applicant's cited reference.

**Regarding claim 10,** Alberth discloses a handheld communication device (fig. 1, element 100) comprising:

an electromechanical ambulation mechanism (fig. 2, vibrator 216);

a drive circuit (multiplexer 209) coupled to the electromechanical ambulation mechanism (vibrator 216);

a controller (microprocessor 206) coupled to the drive circuit (multiplexer 209) ;

a memory storing a control program (fig. 2, memory), coupled to the controller (microprocessor 206); and

a transceiver coupled to the controller (transceiver 204 coupled to microprocessor 206).

**Regarding claim 13,** Alberth discloses the handheld communication device according to claim 10. Alberth further discloses: an accelerometer (accelerometer 210) coupled to the controller (microprocessor 206);

wherein the controller (microprocessor 206) is programmed to:

read a first user input specifying a type of event that is to trigger a movement that is to be learned (fig. 3, step 302);

read a second user input commanding the controller to go into a learn mode (step 304); in the learn mode, read the accelerometer in order to measure one or more movements of the handheld communication device performed by the user (step 306); and

thereafter, in response to detecting an event of the type specified by the user, operate the drive circuit in order to mimic the one or more movements of the handheld communication device performed by the user (page 8, lines 9-24).

5. Claims 10, 11, 14, 15, and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Shibata (US 2001/0023197). Note: Applicant's cited reference.

**Regarding claim 10,** Shibata discloses a handheld communication device (i.e., radio communication device) comprising:

an electromechanical ambulation mechanism (fig. 2, vibrator 90);  
a drive circuit (fig. 2, vibration drive circuit 131) coupled to the electromechanical ambulation mechanism (fig. 2, vibrator 90);

a controller (fig. 2, control unit 140) coupled to the drive circuit (fig. 2, vibration drive circuit 131) ;

a memory storing a control program (fig. 2, memory 80), coupled to the controller (fig. 2, control unit 140); and

a transceiver coupled to the controller (fig. 2, signal processor 60).

**Regarding claim 11,** Shibata discloses the handheld communication device according to claim 10. Shibata further teaches wherein: the controller is programmed by the control program stored in the memory to: operate the transceiver to receive a communication (paragraph 0024); and in response to receiving the communication (i.e., to set the vibrator in “ON” state): operate the drive circuit in order to drive the electromechanical ambulation mechanism (paragraph 0030).

**Regarding claim 14,** Shibata discloses a handheld audio device comprising (i.e., a radio communication device):

a housing (fig. 1, casing 10), said housing holding:  
a controller (fig. 2, control unit 140); a  
at least one memory storing a control program for operating the handheld audio device (fig. 2, memory 80), said at least one memory (memory 80) coupled to the controller (control unit 140); an audio system (receiver 50 & microphone 40) coupled to the controller (control unit 140);

an ambulation system (vibrator 90 & vibration drive circuit 131) comprising:  
an electromechanical ambulation mechanism (vibrator 90);  
a first drive circuit (vibration drive circuit 131) coupled to the electromechanical ambulation mechanism (vibrator 90), and coupled to the controller (control unit 140); wherein, the controller is programmed to drive the ambulation system in response to audio processed by the audio system (paragraph 0030).

**Regarding claim 15,** Shibata discloses the handheld audio device according to claim 14. Shibata also discloses wherein: said audio system comprises a loudspeaker

(receiver 50), and a second drive circuit coupled to the loudspeaker (signal processor 60 coupled to receiver 50).

**Regarding claim 18**, Shibata discloses the handheld audio device according to claim 14. Shibata also discloses wherein: said audio system comprises a microphone (microphone 40); and wherein the controller is programmed by the control program to: process input audio signals (signal processor 60) received from the microphone (microphone 40) to obtain processed audio; and operate the electromechanical ambulation mechanism (vibrator 90) according to the processed audio (paragraphs 0024 & 0030).

#### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shibata in view of Kamimura (US 2002/0094806).

**Regarding claim 12**, Shibata discloses the handheld communication device according to claim 10, except wherein: the memory also stores a plurality of movement instructions, each of which is associated with a particular type of communication; and the controller is programmed by the control program stored in the memory to: operate the transceiver to receive a communication; access one of the movement instructions

that is associated with the particular type of the received communication; and operate the drive circuit according to the movement instructions associated with the particular type of the received communication, whereby, in response to receiving communications, the handheld communication device moves in a distinctive way that identifies the type of received communication.

In a similar endeavor, Kamimura discloses a communication apparatus for use in a communication system providing caller ID functionality. Kamimura further discloses:

the memory also stores a plurality of movement instructions (fig. 1, memory 60), each of which is associated with a particular caller; and

the controller (control unit 100) is programmed by the control program stored in the memory to: operate the transceiver to receive a communication (paragraph 0052); access one of the movement instructions that is associated with the particular caller (paragraph 0044); and

operate the drive circuit according to the movement instructions associated with the particular callers whereby, in response to receiving communications, the handheld communication device moves in a distinctive way that identifies the callers (paragraph 0044).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to add Shibata's radio communication device capable of generating ringer melody to Kamimura's radio communication apparatus including storing ring tone patterns. The Examiner also notes that even though Kamimura discloses that a particular vibrating pattern is associated with a particular caller, and not

a type of communication. However, it is obvious to one skilled in the art to modify Shibata in view of Kamimura and arrive at the present invention by associating a vibrating pattern with a type of communication instead of a particular caller.

The motivation/suggestion for doing so would have been to identify a caller easily by looking at different alerting patterns.

8. Claims 16, 17, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shibata in view of Noro (EP 1222971, Note: Applicant's cited reference.)

**Regarding claim 16**, Shibata discloses the handheld audio device according to claim 14, except the controller is programmed to digitally process digital audio to obtain processed audio and drive the ambulation system according to the processed audio.

In a similar endeavor, Noro discloses a device for driving vibration source. Noro also discloses wherein: the controller is programmed to digitally process digital audio to obtain processed audio and drive the ambulation system according to the processed audio (paragraphs 0047-0050).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to add Shibata's radio communication device capable of generating ringer melody to Noro's device for driving vibration source.

The motivation/suggestion for doing so would have been to obtain an effect that the user can enjoy it without having a feeling of wrongness.

**Regarding claim 17**, Shibata, and Noro teach the handheld audio device according to claim 16. Noro further teaches wherein: the controller is programmed to process digital music with a beat detection algorithm (detection circuit 18), in order to detect one or more beats (i.e., rhythm sounds), and operate the ambulation system so as to change a movement of the handheld audio device in response to the one or more beats (i.e., generating vibration in synchronization with the rhythm sounds). See paragraphs 0028-0029.

**Regarding claim 19**, Shibata discloses the handheld audio device according to claim 18, but does not disclose wherein: the controller is programmed to process input audio signals received from the microphone with a beat detection algorithm to detect one or more beats and operate the electromechanical ambulation mechanism to change a movement of the handheld audio device in response to the one or more beats.

In a similar endeavor, Noro discloses a device for driving vibration source. Noro also discloses wherein: the controller is programmed to process input audio signals received from the microphone with a beat detection algorithm to detect one or more beats and operate the electromechanical ambulation mechanism to change a movement of the handheld audio device in response to the one or more beats (paragraphs 0028-0030).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to add Shibata's radio communication device capable of generating ringer melody to Noro's device for driving vibration source.

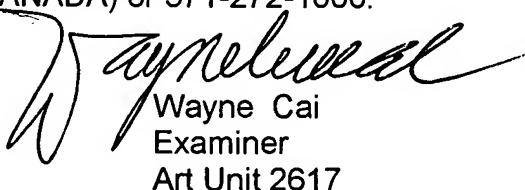
The motivation/suggestion for doing so would have been to obtain an effect that the user can enjoy it without having a feeling of wrongness.

***Conclusion***

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wayne Cai whose telephone number is (571) 272-7798. The examiner can normally be reached on Monday-Friday; 9:00-6:00; alternating Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duc Nguyen can be reached on (571) 272-7503. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Wayne Cai  
Examiner  
Art Unit 2617

  
ELISEO RAMOS-FELICIANO  
PRIMARY EXAMINER